



SEQUENCE LISTING

<10> Rhein Biotech Gesellschaft für neue biotechnologische Prozesse und Produkte mbH (Rhein Biotech Company for new biotechnological processes and products Ltd.)

<120> Nucleic acid molecule, including a nucleic acid coding for a polypeptide with chorismate mutase activity

<130> P30558-01996

<160> 3

<170> PatentIn version 3.1

<210> 1

<211> 843

<212> DNA

<213> Hansenula polymorpha

<400> 1

atggacttta tgaagccaga aacagtgctg gaccttggca acattagaga tgccttggtc 60
cggatggagg atacgatcat cttcaacttt atcgagcggg cgcagttcta tgcgtcgccc 120
tcggtataca aagtcaacca gttccctatt cccaacttcg acggctcggt cttggactgg 180
ctgttgctgc agcacgagcg aatccattcg caggtgagga gatacgacgc gccagacgag 240
gtgccttttt tccccaacgt gctggaaaaa acgtttctgc ccaagatcaa ctacccatcg 300
gtgctagcct cctacgcgga tgaaatcaac gtcaacaaag agatactcaa gatctacacg 360
tcagagatag taccaggaat agctgcaggc agcggagagc aggaggacaa ccttggctcg 420
tgcgcaatgg ccgacatcga gtgcctgcag tcgctatcca gaagaatcca ttttggccgt 480
tttgtcgcag aggctaaatt tatcagtgcg ggggacaaga ttgtggatct gatcaaaaag 540
agagatgtgg aaggcattga ggcgctcatc acaaacgccg aggtcgaaaa acggatcttg 600
gacagacttc tggagaaggg aagggcgatg ggaacagacc cgacactaaa gttcacgcag 660
cacattcaga gcaagggtgaa gcccgaggtg attgtgaaaa tctacaagga tttcgtgatt 720
ccgctcacga agaagggtcga agtcgactac ttgctgagac ggctggagga cgaggaggac 780
gatgatgcga cgcagaaaaa cggcggctac gttgaccggt ttctctctc tggcttgtag 840
tag 843

<210> 2

<211> 281

<212> PRT

<213> Hansenula polymorpha

<400> 2

Met Asp Phe Met Lys Pro Glu Thr Thr Val Leu Asp Leu Gly Asn Ile
1 5 10 15

Arg Asp Ala Leu Val Arg Met Glu Asp Thr Ile Ile Phe Asn Phe Ile
20 25 30

Glu Arg Ser Gln Phe Tyr Ala Ser Pro Ser Val Tyr Lys Val Asn Gln
35 40 45

Phe Pro Ile Pro Asn Phe Asp Gly Ser Phe Leu Asp Trp Leu Leu Ser
50 55 60

Gln His Glu Arg Ile His Ser Gln Val Arg Arg Tyr Asp Ala Pro Asp
65 70 75 80

Glu Val Pro Phe Phe Pro Asn Val Leu Glu Lys Thr Phe Leu Pro Lys
85 90 95

Ile Asn Tyr Pro Ser Val Leu Ala Ser Tyr Ala Asp Glu Ile Asn Val
100 105 110

Asn Lys Glu Ile Leu Lys Ile Tyr Thr Ser Glu Ile Val Pro Gly Ile
115 120 125

Ala Ala Gly Ser Gly Glu Gln Glu Asp Asn Leu Gly Ser Cys Ala Met
130 135 140

Ala Asp Ile Glu Cys Leu Gln Ser Leu Ser Arg Arg Ile His Phe Gly
145 150 155 160

Arg Phe Val Ala Glu Ala Lys Phe Ile Ser Glu Gly Asp Lys Ile Val
165 170 175

Asp Leu Ile Lys Lys Arg Asp Val Glu Gly Ile Glu Ala Leu Ile Thr
180 185 190

Asn Ala Glu Val Glu Lys Arg Ile Leu Asp Arg Leu Leu Glu Lys Gly
195 200 205

Arg Ala Tyr Gly Thr Asp Pro Thr Leu Lys Phe Thr Gln His Ile Gln
210 215 220

Ser Lys Val Lys Pro Glu Val Ile Val Lys Ile Tyr Lys Asp Phe Val
225 230 235 240

Ile Pro Leu Thr Lys Lys Val Glu Val Asp Tyr Leu Leu Arg Arg Leu
245 250 255

Glu Asp Glu Glu Asp Asp Asp Ala Thr Gln Lys Ser Gly Gly Tyr Val
 260 265 270

Asp Arg Phe Leu Ser Ser Gly Leu Tyr
 275 280

<210> 3

<211> 1655

<212> DNA

<213> *Hansenula polymorpha*

<220>

<221> gene

<222> (1)..(1655)

<223> 1,8 kb genomic DNA-fragment from *Hansenula polymorpha*

<400> 3

```

ccccgccccaa tgccagcaat atggagacgt ttaggcagaa taggcgttcc atactttctca 60
cgctgcttgt tgccaccgga atatacaccg cattgcagtt tgcacacatc atactatatg 120
acgattacat tggcggaaacg tatcgcgagt cgctcacgag acgcattaga atgacagaga 180
aatcgcgaaa cgaccttata gacgcacgtg aaaactacgg gtttggaggc agcaaggagg 240
agcgaatcca gcggtttttg tggttcagac atctttcgtg gcttttaggc gaggataagc 300
gaacttgagg agcggtttttt ttttctgtt tagttttgt aggtatggac tttatgaagc 360
cagaaacagt gctggacctt ggcaacatta gagatgcctt ggtccggatg gaggatacga 420
tcattctcaa ctttatcgag cggtcgagt tctatgcgtc gccctcggtg taaaaagtca 480
accagttccc tattcccaac ttcgacggct cgttcttggg ctggctgttg tcgcagcacg 540
agcgaatcca ttgcaggtg aggagatacg acgcgccaga cgaggtgcct tttttcccca 600
acgtgctgga aaaaacgttt ctgcccaaga tcaactaccc atcgggtgcta gcctcctacg 660
cggatgaaat caacgtcaac aaagagatac tcaagatcta cacgtcagag atagtaccag 720
gaatagctgc aggcagcgga gagcaggagg acaaccttgg ctcggtgcga atggccgaca 780
tcgagtgcct gcagtcgcta tccagaagaa tccattttgg ccgttttgtc gcagaggcta 840
aatattatcag tgaggggggac aagattgtgg atctgatcaa aaagagagat gtggaaggca 900
ttgaggcgct catcacaaac gccgaggtcg aaaaacggat cttggacaga cttctggaga 960

```

agggaagggc gtatggaaca gacccgacac taaagttcac gcagcacatt cagagcaagg 1020
 tgaagcccga ggtgattgtg aaaatctaca aggatttcgt gattccgctc acgaagaagg 1080
 tcgaagtcga ctacttgctg agacggctgg aggacgagga ggacgatgat gcgacgcaga 1140
 aaagcggcgg ctacgttgac cggtttctct cctctggctt gtactagaaa ttaaaatfff 1200
 cagtacttta attattctcg aattctagtt cagataccgc atggtaatff caaaggccag 1260
 aaaagtggcc gcgttggtg gggcagctct cagaatagtc ggcgagaatc ctttgactag 1320
 cccccaggca ccgctctgtc tccaaatacc cctaatagtc tcaacagcat ttctataaac 1380
 cagcttcttg tagttgtccg tctgcatggt ggacttgatc acatcgatcg gataaatact 1440
 gaaccacatc ccgtaacctg ccagcgcccc aaagacgcag agcttccagt tctcgatgtc 1500
 cttcctggca atattccgcg actcgatctc gtttttcacg agagcttcaa aagtcagaaa 1560
 atacgtccg ctacccaaac tttctcttgc cagcgtaggt ccagacccc ggtagattaa 1620
 cttgatgcct cccgtatggt acagcttctt gatcc 1655